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<151> July 14, 1998

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Asn Gln Ser Thr Leu Ala Glu Thr Phe Met Asn Lys Val Lys Leu Gln  
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Ile Arg Tyr Pro Leu Asn Glu Asp Ile Leu Thr Asp Ala Pro Asn Ile
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Ser Glu Ala Ala Thr Gln Leu Ile Lys Phe His Gly Ser Tyr Gln Gln
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Tyr Asn Arg Glu Glu Arg Gly Ser Arg Ser Tyr Ser Phe Met Ile Arg
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Asp Asp Leu Ala Asp Gln Phe Gly Ile Gly Thr Leu Arg Leu Thr Thr
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Arg Gln Thr Phe Gln Leu His Gly Val Leu Lys Lys Asp Leu Lys Thr
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Val Met Gly Thr Ile Ile Arg Asn Met Gly Ser Thr Leu Gly Ala Cys
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Lys Val Leu Glu Pro Leu Phe Tyr Tyr Trp Lys Gln Lys Arg Gln Ser  
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Lys Glu Ser Phe Gly Asp Phe Thr Asn Arg Met Gly Phe Glu Lys Leu  
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Lys Glu Tyr Ile Glu Lys Trp Glu Gly Pro Val Val Ala Pro Ser Arg  
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His Asn Leu Lys Leu Phe Ala Asp Lys Glu Thr Tyr Glu Ser Met Asp  
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 Val Arg Gly Gln Lys Asn Tyr Ser Phe Met Leu Arg Thr Lys Asn Pro  
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 Cys Gly Lys Val Pro Asn Gln Leu Tyr Leu Ala Met Asp Thr Leu Ala  
 130 135 140  
 Asp Glu Phe Gly Ile Gly Thr Leu Arg Leu Thr Thr Arg Gln Thr Phe  
 145 150 155 160  
 Gln Leu His Gly Val Leu Lys Lys Asn Leu Lys Thr Val Leu Ser Thr  
 165 170 175  
 Val Ile Lys Asn Met Gly Ser Thr Leu Gly Ala Cys Gly Asp Leu Asn  
 180 185 190  
 Arg Asn Val Leu Ala Pro Ala Ala Pro Tyr Val Lys Lys Asp Ile Leu  
 195 200 205  
 Phe Ala Gln Gln Thr Ala Glu Asn Ile Ala Ala Leu Leu Thr Pro Gln  
 210 215 220  
 Ser Gly Ala Tyr Tyr Asp Leu Trp Val Asp Gly Glu Lys Ile Met Ser  
 225 230 235 240  
 Ala Glu Glu Pro Pro Glu Val Thr Lys Ala Arg Asn Asp Asn Ser His  
 245 250 255  
 Gly Thr Asn Phe Pro Asp Ser Pro Glu Pro Ile Tyr Gly Thr Gln Tyr  
 260 265 270  
 Leu Pro Arg Lys Phe Lys Val Ala Val Thr Ala Ala Gly Asp Asn Ser  
 275 280 285  
 Val Asp Ile Leu Thr Asn Asp Ile Gly Val Val Val Val Ser Asp Asp  
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 Ala Gly Glu Pro Ile Gly Phe Asn Ile Tyr Val Gly Gly Gly Met Gly  
 305 310 315 320  
 Arg Thr His Arg Val Glu Thr Thr Phe Pro Arg Leu Ala Asp Pro Leu  
 325 330 335  
 Gly Tyr Val Pro Lys Glu Asp Ile Leu Tyr Ala Ile Lys Ala Ile Val  
 340 345 350

Val	Thr	Gln	Arg	Glu	Asn	Gly	Arg	Arg	Asp	Asp	Arg	Lys	Tyr	Ser	Arg	
		355					360					365				
Met	Lys	Tyr	Met	Ile	Asp	Arg	Trp	Gly	Ile	Asp	Arg	Phe	Arg	Ala	Glu	
	370					375					380					
Val	Glu	Lys	Tyr	Tyr	Gly	Lys	Lys	Phe	Glu	Ser	Phe	Arg	Pro	Leu	Pro	
385					390					395					400	
Glu	Trp	Gln	Phe	Asn	Ser	Tyr	Leu	Gly	Trp	Gln	Glu	Gln	Gly	Asp	Gly	
				405					410					415		
Lys	Leu	Phe	Tyr	Gly	Val	His	Val	Asp	Asn	Gly	Arg	Val	Gly	Gly	Gln	
			420					425					430			
Ala	Lys	Lys	Thr	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Tyr	Asn	Leu	Asp	Val	
		435					440					445				
Ser	Ile	Thr	Pro	Asn	Gln	Asn	Leu	Ile	Leu	Cys	Gly	Ile	Asp	Gln	Ala	
	450					455					460					
Trp	Arg	Glu	Pro	Ile	Thr	Thr	Ala	Leu	Ala	Gln	Ala	Gly	Leu	Leu	Glu	
465					470					475					480	
Pro	Lys	Asp	Val	Asp	Pro	Leu	Asn	Leu	Thr	Ala	Met	Ala	Cys	Pro	Ala	
				485					490					495		
Leu	Pro	Leu	Cys	Pro	Leu	Ala	Gln	Thr	Glu	Ala	Glu	Arg	Gly	Ile	Leu	
			500					505					510			
Pro	Ile	Leu	Lys	Arg	Ile	Arg	Ala	Val	Phe	Asn	Lys	Val	Gly	Ile	Lys	
		515					520					525				
Asp	Ser	Glu	Ser	Val	Val	Val	Arg	Ile	Thr	Gly	Cys	Pro	Asn	Gly	Cys	
	530					535					540					
Ala	Arg	Pro	Tyr	Met	Ala	Glu	Leu	Gly	Phe	Val	Gly	Asp	Gly	Pro	Lys	
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Ser	Tyr	Gln	Ile	Trp	Leu	Gly	Gly	Thr	Pro	Asn	Gln	Ser	Thr	Leu	Ala	
				565					570					575		
Glu	Ser	Phe	Met	Asp	Lys	Val	Lys	Leu	Asp	Asp	Ile	Glu	Lys	Val	Leu	
			580					585					590			
Glu	Pro	Leu	Phe	Thr	Tyr	Trp	Asn	Gly	Thr	Arg	Gln	Glu	Gly	Glu	Ser	
		595					600					605				
Phe	Gly	Ser	Phe	Thr	Asn	Arg	Thr	Gly	Phe	Asp	Lys	Leu	Lys	Glu	Val	
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 <212> PRT  
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<400> 8

Met Thr Thr Ser Phe Gly Ala Ala Ile Asn Ile Ala Val Ala Asp Asp  
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Pro Asn Pro Lys Leu Gln Ile His Asn Phe Ser Gly Leu Lys Ser Thr  
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Ser Asn Ser Leu Leu Leu Ser Arg Arg Leu His Val Phe Gln Ser Phe  
35 40 45

Ser Pro Ser Asn Pro Ser Ser Ile Val Arg Ala Val Ser Thr Pro Ala  
50 55 60

Lys Pro Ala Ala Val Glu Pro Lys Arg Ser Lys Val Glu Ile Phe Lys  
65 70 75 80

Glu Gln Ser Asn Phe Ile Arg Tyr Pro Leu Asn Glu Glu Ile Leu Asn  
85 90 95

Asp Ala Pro Asn Ile Asn Glu Ala Ala Thr Gln Leu Ile Lys Phe His  
100 105 110

Gly Ser Tyr Met Gln Tyr Asp Arg Asp Glu Arg Gly Gly Arg Ser Tyr  
115 120 125

Ser Phe Met Leu Arg Thr Lys Asn Pro Gly Gly Glu Val Pro Asn Arg  
130 135 140

Leu Tyr Leu Val Met Asp Asp Leu Ala Asp Gln Phe Gly Ile Gly Thr  
145 150 155 160

Leu Arg Leu Thr Thr Arg Gln Thr Phe Gln Leu His Gly Val Leu Lys  
165 170 175

Lys Asn Leu Lys Thr Val Met Ser Thr Ile Ile Lys Asn Met Gly Ser  
180 185 190

Thr Leu Gly Ala Cys Gly Asp Leu Asn Arg Asn Val Leu Ala Pro Ala  
195 200 205

Ala Pro Phe Ala Lys Lys Asp Tyr Met Phe Ala Lys Gln Thr Ala Asp  
210 215 220

Asn Ile Ala Ala Leu Leu Thr Pro Gln Ser Gly Phe Tyr Tyr Asp Val  
225 230 235 240

Trp Val Asp Gly Glu Lys Val Met Thr Ala Glu Pro Pro Glu Val Val  
245 250 255

Lys Ala Arg Asn Asp Asn Ser His Gly Thr Asn Phe Pro Asp Ser Pro  
260 265 270

Glu Pro Ile Tyr Gly Thr Gln Phe Leu Pro Arg Lys Phe Lys Ile Ala  
275 280 285

Val Thr Val Pro Thr Asp Asn Ser Val Asp Ile Phe Thr Asn Asp Ile  
290 295 300

Gly Val Val Val Val Ser Asn Glu Asp Gly Glu Pro Gln Gly Phe Asn  
305 310 315 320

Ile	Tyr	Val	Gly	Gly	Gly	Met	Gly	Arg	Thr	His	Arg	Met	Glu	Thr	Thr	
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Phe	Pro	Arg	Leu	Ala	Glu	Pro	Leu	Gly	Tyr	Val	Pro	Lys	Glu	Asp	Ile	
			340					345					350			
Leu	Tyr	Ala	Val	Lys	Ala	Ile	Val	Val	Thr	Gln	Arg	Glu	Asn	Gly	Arg	
		355					360					365				
Arg	Asp	Asp	Arg	Arg	Tyr	Ser	Arg	Leu	Lys	Tyr	Leu	Leu	Ser	Ser	Trp	
	370					375					380					
Gly	Ile	Glu	Lys	Phe	Arg	Ser	Val	Thr	Glu	Gln	Tyr	Tyr	Gly	Lys	Lys	
385					390					395					400	
Phe	Gln	Pro	Cys	Arg	Glu	Leu	Pro	Glu	Trp	Glu	Phe	Lys	Ser	Tyr	Leu	
				405					410					415		
Gly	Trp	His	Glu	Ala	Gly	Asp	Gly	Ser	Leu	Phe	Cys	Gly	Leu	His	Val	
			420					425					430			
Asp	Asn	Gly	Arg	Val	Lys	Gly	Ala	Met	Lys	Lys	Ala	Leu	Arg	Glu	Val	
		435					440					445				
Ile	Glu	Lys	Tyr	Asn	Leu	Asn	Val	Arg	Leu	Thr	Pro	Asn	Gln	Asn	Ile	
	450					455					460					
Ile	Leu	Cys	Asn	Ile	Arg	Gln	Ala	Trp	Lys	Arg	Pro	Ile	Thr	Thr	Val	
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Leu	Ala	Gln	Gly	Gly	Leu	Leu	Gln	Pro	Arg	Tyr	Val	Asp	Pro	Leu	Asn	
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Leu	Thr	Ala	Met	Ala	Cys	Pro	Ala	Phe	Pro	Leu	Cys	Pro	Leu	Ala	Ile	
			500					505					510			
Thr	Glu	Ala	Glu	Arg	Gly	Ile	Pro	Asp	Ile	Leu	Lys	Arg	Val	Arg	Ala	
		515					520					525				
Ile	Phe	Glu	Arg	Val	Gly	Leu	Lys	Tyr	Ser	Glu	Ser	Val	Val	Ile	Arg	
	530					535					540					
Ile	Thr	Gly	Cys	Pro	Asn	Gly	Cys	Ala	Arg	Pro	Tyr	Met	Ala	Glu	Leu	
545					550					555					560	
Gly	Leu	Val	Gly	Asp	Gly	Pro	Asn	Ser	Tyr	Gln	Ile	Trp	Leu	Gly	Gly	
				565					570					575		
Thr	Pro	Asn	Gln	Thr	Ser	Leu	Ala	Lys	Thr	Phe	Lys	Asp	Lys	Leu	Lys	
			580					585					590			
Val	Gln	Asp	Leu	Glu	Lys	Val	Leu	Glu	Pro	Leu	Phe	Phe	His	Trp	Arg	
		595					600					605				
Arg	Lys	Arg	Gln	Ser	Lys	Glu	Ser	Phe	Gly	Asp	Phe	Thr	Asn	Arg	Met	
	610					615					620					
Gly	Phe	Glu	Lys	Leu	Gly	Glu	Phe	Val	Glu	Lys	Trp	Glu	Gly	Ile	Pro	
625					630					635					640	

Glu	Ser	Ser	Ser	Arg	Tyr	Asn	Leu	Lys	Leu	Phe	Ala	Asp	Arg	Glu	Thr
				645					650					655	
Tyr	Glu	Ala	Met	Asp	Ala	Leu	Ala	Ser	Ile	Gln	Asp	Lys	Asn	Ala	His
			660					665					670		
Gln	Leu	Ala	Ile	Glu	Val	Val	Arg	Asn	Tyr	Val	Ala	Ser	Gln	Gln	Asn
		675					680					685			
Gly	Lys	Ser	Met	Asp											
	690														